ABSTRACT OF THE DISCLOSURE

[1035] The present application describes a battery charger interface architecture suitable for digital applications. According to some embodiment, the parameters of a battery are measured and converted into a digital data stream using various analog-to-digital conversion techniques. The digital data stream is compared with a predetermined digital reference to control a duty cycle of a PWM sequence according to a functional mode of the battery charger interface. If the battery charger provides a controlled current output, then the battery charger interface architecture operates in a pulse mode controlling the duty cycle of the battery charger current. If the battery charger does not provide a controlled current output, then the battery charger interface architecture operates in a linear mode controlling the charging current of the battery charger.